RULE 236 WOOD PRODUCTS COATING OPERATIONS

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100 GENERAL

101 PURPOSE: To establish limits on the emission of volatile organic compounds (VOC) from coatings and strippers used on wood products, and from products used in surface preparation and cleanup.

102 APPLICABILITY:

102.1 Geographic: The provisions of this rule apply only to facilities located in the Sacramento Valley Air Basin portion of Placer County, as defined by California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 1.5, Article 1, Section 60106.

102.2 Business Category: The provisions of this rule shall apply to any person who uses, manufactures, blends, sells, repackages, distributes, or specifies wood products coatings and/or strippers to be used for the coating and/or surface preparation of wood products, including furniture, cabinets, and custom replica furniture.

103 EXEMPTIONS:

103.1 Exemption, Residential: Residential non-commercial operations are exempt from all provisions of this rule.

103.2 Exemption, Non-Shop Architectural Coating Operations: The coating of stationary structures and their appurtenances in a non-shop environment, is subject to Rule 218, Architectural Coatings, and is exempt from all provisions of this rule.

103.3 Exemption, Aerosol Spray Coatings: Aerosol wood products coatings sold in non-refillable aerosol containers are exempt from all provisions of this rule.

103.4 Exemption, Panels and Siding: The factory application of wood products coatings in the manufacturing of finished wood panels intended for attachment to the inside walls of buildings, including, but not limited to, homes and office buildings, mobile homes, trailers, prefabricated buildings and similar structures, is subject to Rule 238, Factory Coating of Flat Wood Paneling, and is exempt from all provisions of this rule.

103.5 Exemption, Other: The application of coatings by template or stencil to add designs, letters or numbers to wood products, and the application of coatings to wooden musical instruments are exempt from all provisions of this rule.

103.6 Partial Exemption, Low Volume: Businesses using less than 55 gallons per year of wood products coatings and/or strippers (singly or in any combination) are exempt from all provisions of this rule with the exception of Section 501, USAGE RECORDS.

103.7 Partial Exemption, Specific Finishes: Coatings used to produce the following finishes are exempt from the provisions of Sections 302, 303 and 304, provided that records are maintained as specified in Section 501:

103.7.1 Crackle lacquers.

103.7.2 Faux finishes.

103.7.3 Imitation wood grain.

103.7.4 Leaf Finishes.

103.8 Exemption From Requirements of Other District Rules: Any wood products coating, stripper or cleaning solvent subject to the VOC limitations of this rule, Sections 302, 303, and 304, is exempt from the requirements of Rule 219, Organic Solvents.

200 DEFINITIONS

201 AEROSOL-SPRAY COATING: A coating which is sold in a hand-held, pressurized, non-refillable container of 1 liter (1.1 quarts) or less, and which is expelled from the container in a finely divided spray when a valve on the container is depressed.

202 AFFECTED POLLUTANT: Volatile organic compounds (VOC), as defined in Section 249.

203 AIR ASSISTED AIRLESS SPRAY: Equipment used to apply coatings that uses fluid pressure to atomize coating and air pressure between 0.1 and 20 psig to adjust the spray pattern.

204 BINDERS: Non-volatile polymeric organic materials (resins) which form surface film in coating applications.

205 CAPTURE EFFICIENCY: Expressed in percent, capture efficiency is the ratio of the weight of the VOC in the effluent stream entering a control device to the weight of the VOC emitted from wood product coating operations, both measured simultaneously in accordance with Section 503.4, and calculated by the following equation:

$$\text{Capture Efficiency} = \frac{W_c}{W_e} \times 100$$

Where: W_c = Weight of VOC entering the control device
W_e = Weight of VOC discharged from the coating operations.

206 CLEANUP MATERIAL: A VOC-containing material used to clean application equipment used in wood products coating operations.

207 CLEAR TOPCOAT: The final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film.

208 CLOSED CONTAINER: A container which has a cover where the cover meets with the main body of the container without any gaps between the cover and the main body of the container.

209 COATING: A material which is applied to a surface and which forms a film in order to beautify and/or protect such surface. "Coating" includes, but is not limited to, materials such as topcoats, stains, sealers, fillers, conversion varnish, pigmented coating, multicolored coating, moldseal coating, washcoat, and toner.

210 CONTROL DEVICE EFFICIENCY: Expressed in percent, control device efficiency is the ratio of the weight of the VOC removed by the control device from the effluent stream entering the control device to the weight of VOC in the effluent stream entering the control device, both measured simultaneously in accordance with Section 503.5, and calculated by the following equation:

$$\text{Control Device Efficiency} = \frac{(W_c - W_a)}{W_c} \times 100$$

Where: W_c = Weight of VOC entering the control device
W_a = Weight of VOC discharged from the control device

211 CONVERSION VARNISH: A coating comprised of a homogeneous (alkyd-amino resin) liquid which, when acid catalyzed and applied, hardens upon exposure to air or heat, by evaporation and polymerization, to form a continuous film that imparts protective or decorative properties to wood surfaces. When used as a self sealing system or as a

pigmented coating, conversion varnish shall not be subject to the July 1, 2005 VOC limit for Sealers or for Pigmented Coatings, as specified in section 302.

212 CRACKLE LACQUER: A clear or pigmented topcoat intended to produce a cracked or crazed appearance when dry.

213 DETAILING OR TOUCH-UP GUN: Small air spray equipment, including air brushes, that operates at no greater than five (5) cfm air flow and no greater than 50 psig air pressure and is used to repair or touch-up portions of wood products.

214 DIP COAT: A coating which is applied by dipping an object into a vat of coating material and allowing any excess coating material to drain off.

215 ELECTROSTATIC APPLICATION: The electrical charging of atomized coating droplets for deposition by electrostatic attraction.

216 EMISSIONS UNIT: An identifiable operation or piece of process equipment such as an article, machine, or other contrivance which controls, emits, may emit, or results in the emissions of any affected pollutant directly or as fugitive emissions

217 EMISSION CONTROL SYSTEM: A system for reducing emissions of VOC from coating operations. It consists of (1) equipment which captures drying oven exhaust and fugitive emissions from the line and transports them to the control device, and (2) a VOC control device which destroys the VOC or otherwise limits the emission of VOC to the atmosphere. The capture efficiency and the control device efficiency are calculated in accordance with Sections 205 and 210, respectively.

The Emission Control System Efficiency is calculated by the following equation:

$$\text{Efficiency},\% = \frac{\text{Capture Efficiency},\% \times \text{Control Device Efficiency},\%}{100}$$

218 ENCLOSED GUN CLEANER:

218.1 A device that is used for the cleaning of spray guns, pots and hoses, that has an enclosed solvent container, is not open to the ambient air when in use, and has a mechanism to force the cleanup material through the gun while the cleaner is in operation; or

218.2 A device that is used for the cleaning of spray guns, pots and hoses, that has an enclosed solvent container, uses non-atomized solvent flow to flush the spray equipment and collects and returns the discharged solvent to the enclosed container

219 EXEMPT COMPOUNDS: For the purposes of this rule, Exempt Compounds are as described in Rule 102, Definitions.

220 FAUX FINISH: A finish intended to simulate a surface other than wood, including stone, sand, slate, marble, metal, metal flake or leather.

221 FILLER: A preparation used to fill in cracks, grains, etc., of wood before applying a coating.

222 FLOW COATING: A coating application system where paint flows over the part and the excess coating drains back into the collection system.

223 HIGH-SOLIDS: A coating containing more than one (1) pound of solids per gallon of coating, by weight and which can include wiping stains, glazes, and opaque stains.

224 HIGH-VOLUME-LOW-PRESSURE (HVLP) SPRAY: Equipment used to apply coatings by means of a spray gun which is designed to be operated and which is operated between 0.1

and 10 psig air pressure measured dynamically at the center of the air cap and at the air horns.

225 IMITATION WOOD GRAIN: A hand applied finish that simulates the appearance of a specific natural wood grain.

226 INK: A fluid that contains dyes and/or colorants and is used to make markings but not to protect surfaces.

227 LEAF FINISH: A finish used in conjunction with metal leaf or foil.

228 LOW-SOLIDS COATING: A coating containing one (1) pound of solids per gallon of coating or less, by weight and which can include semi-transparent stains, toners, and washcoats.

229 LOW-VOLUME, LOW-PRESSURE (LVLP) EQUIPMENT: Spray coating application equipment with air pressure between 0.1 and 10.0 psig and air volume less than 15.5 cfm per spray gun and which operates at a maximum fluid delivery pressure of 50 psig.

230 MOLD-SEAL COATING: The initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

231 MULTI-COLORED COATING: A coating which exhibits more than one (1) color when applied and which is packaged in a single container and applied in a single coat.

232 NEW WOOD PRODUCT: A wood product which has not been previously coated or a wood product from which uncured coatings have been removed to repair flaws in initial coatings applications.

233 NON-SHOP ARCHITECTURAL COATING OPERATIONS: The commercial application of coatings to stationary structures and/or their appurtenances, to mobile homes, to pavements, or to curbs, and not conducted inside, or on the premises of, a factory or shop building facility.

234 OPAQUE STAINS: Stains not classified as semitransparent stains, which contain pigments which give character to wood.

235 PIGMENTED COATINGS: Opaque coatings which contain binders and colored pigments which are formulated to hide the wood surface, either as an undercoat or topcoat.

236 REACTIVE DILUENT: A liquid component of a coating which is a VOC during application, and one in which, through chemical or physical reactions, such as polymerization, becomes an integral part of a finished coating.

237 REFINISHING OPERATION: The steps necessary to remove cured coatings and to repair, preserve, or restore a wood product.

238 REPAIR: Recoating portions of previously coated product to cover mechanical damage to the coating following normal painting operations.

239 ROLL COATER: A series of mechanical rollers that forms a thin coating film on the surface of roller, which is applied to a substrate by moving the substrate underneath the roller.

240 SEALER: A coating containing binders, which seals the wood prior to application of the subsequent coatings.

241 SEMITRANSPARENT STAIN: A stain containing dyes and/or semi-transparent pigments which are formulated to enhance wood grain and change surface color but not to conceal surface grain, and include sap stain and non-grain raising stains. Semitransparent stains with greater than one (1) pound of solids per gallon of coating shall be considered opaque stains.

242 SIMULATED WOOD MATERIALS: Materials, such as plastic, glass, metal, etc., that are made to give a wood-like appearance or are processed like a wood product.

243 STENCIL COATING: An ink or a pigmented coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to wood products.

244 STRIPPER: A liquid used to remove cured coatings, cured inks, and/or cured adhesives.

245 SURFACE PREPARATION MATERIAL: A VOC-containing material applied to the surface of any wood product, prior to the application of coatings, to clean the wood product or to promote the adhesion of subsequent coatings.

246 TONER: A wash coat which contains binders and dyes or pigments to add tint to a coated surface.

247 TOUCH-UP: A coating used to cover minor coating imperfections appearing after the main coating operation.

248 VOC COMPOSITE PARTIAL VAPOR PRESSURE: VOC composite partial vapor pressure for determination of compliance with Section 304 shall be calculated by the following

$$PP_c = \frac{\sum_{i=1}^{n}(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^{n} WSUB\frac{i}{MW_i}}$$

equation:

Where:
- PP_c = VOC composite partial pressure at 20°C, in mm mercury.
- W_i = Weight of the "I"$_{th}$ VOC compound, in grams.
- W_w = Weight of water, in grams.
- W_e = Weight of exempt compounds, in grams.
- Mw_i = Molecular weight of the "I"$_{th}$ VOC compound, in (g/g-mole).
- Mw_w = Molecular weight of water, in (g/g-mole).
- Mw_e = Molecular weight of exempt compound, in (g/g-mole).
- Vp_i = Vapor pressure of the "I"$_{th}$ VOC compound at 20°C, in mm mercury.

249 VOLATILE ORGANIC COMPOUND (VOC): Any chemical compound containing at least atom of carbon, except for the Exempt Compounds listed in Rule 102, Definitions.

250 VOC CONTENT PER LITER OF COATING, LESS WATER AND EXEMPT COMPOUNDS: The weight of VOC per combined volume of VOC and coating solids, shall be calculated by the following equation:

$$G_1 = \frac{W_v - W_w - W_{ec}}{V_m - V_w - V_{ec}}$$

Where:
- G_1 = Weight of VOC per liter of coating, less water and less exempt compounds.
- W_v = Weight of volatile compounds, in grams.
- W_w = Weight of water, in grams.
- W_{ec} = Weight of exempt compounds, in grams.
- V_m = Volume of coating material, in liters.
- V_w = Volume of water, in liters.
- V_{ec} = Volume of exempt compounds, in liters.

251 VOC CONTENT PER LITER OF MATERIAL: The weight (in grams) of VOC per liter of wood products coating material is expressed as Grams VOC per Liter of Material, and shall be calculated using the following

Weight of VOC per volume of material = $\frac{(W_v W_w W_{ec})}{V_m}$

Where: W_v = Weight of all volatile compounds, in grams
W_w = Weight of water, in grams
W_{ec} = Weight of compounds listed as exempt from the definition of VOC, in Section 218, in grams
V_m = Volume of material, including any added VOC-containing solvents or reducers but excluding any colorants added to tint the base, in liters

252 VOC CONTENT PER POUND OF COATING SOLIDS: Pounds of VOC per pound of coating solids is the weight of VOC per weight of coating solids in any given coating material, and shall be calculated by the test method found in Section 503.1 and the following equation:

252.1 Pounds of VOC per Pound of Solids = $\frac{W_s - W_w - W_{es}}{W_r}$

Where: W_s = Weight of volatile compounds, in pounds
W_w = Weight of water, in pounds
W_{es} = Weight of exempt compounds, in pounds
W_r = Weight of coating solids, in pounds

252.2 For coatings that contain **reactive diluents**, the VOC content of the coating is determined **after curing**. For these coatings, the pounds of VOC per pound of coating solids shall be calculated by the test method found in Section 503.1 and the following equation:

Pounds of VOC per Pound of Solids = $\frac{W_s - W_w - W_{es}}{W_r}$

Where: W_s = Weight of volatile compounds in pounds, emitted into the atmosphere during curing
W_w = Weight of water in pounds, emitted into the atmosphere during curing
W_{es} = Weight of exempt compounds in pounds, emitted into the atmosphere during curing
W_r = Weight of coating solids in pounds, prior to reaction

253 WASH COAT: A coating, containing binders, which penetrates into and seals wood, prevents undesired staining, and seals in wood pitch. Washcoats with greater than one (1) pound of solids per gallon of coating shall be considered sealers.

254 WOOD PANEL: Any piece of wood, or wood composition, which is solid or laminated, and which is larger than 10 square feet in size, and which is not subsequently cut into smaller pieces.

255 WOOD PRODUCTS: Surface-coated objects such as cabinets (kitchen, bath and vanity), tables, chairs, beds, sofas, shutters, doors, trim, containers, tools, ladders, art objects, and any other objects made of solid wood and/or wood composition and/or of simulated wood material used in combination with solid wood or wood composition.

256 WOOD PRODUCT COATING APPLICATION OPERATIONS: A combination of coating application steps which may include use of spray guns, flash-off areas, spray booths, ovens,

conveyors, and/or other equipment operated for the purpose of applying coating to wood products.

300 STANDARDS

301 APPLICATION EQUIPMENT REQUIREMENTS: A person subject to the provisions of this rule shall not apply any wood product coating to any wood products, unless one of the following application methods is used:

a. Hand application methods, such as brush or roller

b. Roll coater

c. Dip coat

d. Flowcoat

e. High Volume Low Pressure spray equipment

f. Low Volume Low Pressure spray equipment

g. Air assisted airless, for touch-up and repair only

h. Electrostatic application equipment

I. Any other equivalent method which has been approved in writing by the Air Pollution Control Officer and the U.S. Environmental Protection Agency

302 LIMITS FOR VOC CONTENT OF COATINGS FOR NEW WOOD PRODUCTS: Except as provided in Sections 103, 305, and 306 no person shall apply any coatings to a new wood product, or use VOC-containing solvents, if such materials have a VOC content exceeding the applicable limits specified in the following table. The VOC content of coatings, except low-solid stains, toners, washcoats and solvents, shall be determined in accordance with Sections 250 and 503.1. The VOC content of low-solid stains, toners washcoats and solvents, shall be determined in accordance with Sections 251 and 503.1.

302.1 If the emission averaging provisions of Section 306 are <u>not</u> used to achieve compliance with this section, VOC limits expressed in Grams VOC Per Liter of Coating shall be used.

302.2 If the emission averaging provisions of Section 306 are used to achieve compliance with this section, VOC limits expressed in Pounds VOC Per Pound of Solids, in accordance with Section 252, shall be used.

(Section 302 Continues With The Following Table)

LIMITS FOR VOC CONTENT OF COATINGS FOR NEW WOOD PRODUCTS

SPECIFIC MATERIAL	VOC LIMITS Grams VOC Per Liter of Coating Less Water and Exempt Compounds, as defined in Section 250 (Pounds VOC Per Pound of Solids, which applies only if Emission Averaging is used, as defined in Section 252)	
	BEFORE JULY 1, 2005	**EFFECTIVE JULY 1, 2005**
Clear Topcoats	550 (1.37)	275 (0.35)
Conversion Varnish	550 (1.37)	550 (1.20) *****
Filler	500 (0.66)	275 (0.18)
High-Solid Stain	550 (1.23)	350 (0.42)
Inks	500 (0.96)	500 (0.96)
Mold-Seal Coating	750 (4.20)	750 (4.20)
Multi-colored Coating	685 (2.60)	275 (0.33)
Pigmented Coating	550 (1.10)	275 (0.25) *
Sealer	550 (1.39)	275 (0.36) *****
	VOC LIMITS **Grams VOC per Liter of *Material*, as defined in Section 251** **(Pounds VOC per Pound of Solids, which applies only if Emission Averaging is used, as defined in Section 252)**	
Low Solid Stains, Toners and Washcoats	**BEFORE JULY 1, 2005**	**EFFECTIVE JULY 1, 2005**
	480 (4.0)	120 (1.00)
	VOC LIMITS **Grams VOC Per Liter of *Material*** **(Pounds Per Gallon)**	
Surface Prep and Clean-up Solvents Containing VOC's	**BEFORE JULY 1, 2005**	**EFFECTIVE JULY 1, 2005**
	200 (1.67)	200 (1.67)

***** (See Section 211 for special conditions for Conversion Varnish)

302.3 Notwithstanding the VOC limits specified in this section, a person may apply a sealer with a VOC content not exceeding 680 grams/liter, provided that the topcoat used on the same wood product does not exceed 275 grams/liter.

303 **LIMITS FOR VOC CONTENT OF COATINGS FOR REFINISHING, REPAIRING, PRESERVING, OR RESTORING WOOD PRODUCTS:** Except as provided in Sections 103, 305, and 306 no person shall apply any coatings to refinish, repair, preserve, or restore a wood product, or use VOC-containing solvents, if such materials have a VOC content exceeding the applicable limits specified in the following table. The VOC content of coatings, except low-solid stains, toners, and washcoats, shall be determined in accordance with Sections 250 and 503.1. The VOC content of low-solid stains, toners and washcoats and VOC-containing solvents shall be determined in accordance with Sections 251 and 503.1.

303.1 If the emission averaging provisions of Section 306 are not used to achieve compliance with this section, VOC limits expressed in grams per liter shall be used.

303.2 If the emission averaging provisions of Section 306 are used to achieve compliance with this section, VOC limits expressed in pounds of VOC per pound of solids, in accordance with Section 252, shall be used.

LIMITS FOR VOC CONTENT OF COATINGS TO REFINISH, REPAIR, PRESERVE OR RESTORE

SPECIFIC MATERIAL	**VOC LIMITS** **Grams VOC Per Liter of Coating Less Water and Exempt Compounds, as defined in Section 250 (Pounds VOC Per Pound of Solids [applies only if Emission Averaging is used], as defined in Section 252)**
Clear Topcoats	680 (2.50)
Conversion Varnish	550 (1.20) *
Filler	500 (0.96)
High-Solid Stain	700 (2.57)
Inks	500 (0.96)
Mold-Seal Coating	750 (4.20)
Multi-colored Coating	680 (2.50)
Pigmented Coating	600 (1.60) *
Sealer	680 (2.50) *
	VOC LIMIT **Grams VOC Per Liter of *Material,* as defined in Section 251 (Pounds VOC Per Pound of Solids [applies only if Emission Averaging is used], as defined in Section 252)**
Low Solid Stains, Toners and Washcoats	480 (0.76)
	VOC LIMIT **Grams VOC Per Liter of Material (Pounds VOC Per Gallon)**
Surface Prep and Clean-up Solvents Containing VOC's	200 (1.67)

* (See Section 211 for special conditions for Conversion Varnish)

304 LIMITS OF VOC CONTENT FOR STRIPPERS: A person shall not use a stripper on wood products unless:

304.1 The stripper contains less than 350 grams of VOC per liter of material; **or**

304.2 the VOC composite partial vapor pressure for the stripper is 2 mm mercury (0.04 psia) or less at 20°C (68°F), as calculated pursuant to Section 248.

305 EMISSION CONTROL SYSTEM:

305.1 As an alternative, a person may comply with the VOC limits specified in Sections 302, 303, and 304, by using an approved air pollution control system consisting of a capture system and a control device, which reduces VOC emissions from the application of wood products coatings or strippers by an equivalent or greater amount than the limits specified in Sections 302, 303, and 304, with the written approval of the Air Pollution Control Officer. In order to achieve an equivalent or greater level of VOC reduction, the minimum allowable Emission Control System Efficiency of such a system, when calculated pursuant to Section 217, shall be the efficiency calculated by the following equation:

$$C.E. = 1 - \left(\frac{(VOC_{LWc})}{(VOC_{LWnMax})} X \frac{(1 - (VOC_{LWnMax} / (D_{nMax})}{(1 - (VOC_{LWc} / D_c)} \right) X100$$

Where:

$C.E.$	=	Minimum allowable Emission Control System Efficiency, percent.
VOC_{LWc}	=	VOC Limit of Rule 236, less water and less exempt compounds, pursuant to Sections 302, 303, and/or 304.
$VOC_{LWn,Max}$	=	Maximum VOC content of non-compliant coating used in conjunction with a control device, less water and less exempt compounds.
$D_{n,Max}$	=	Density of solvent, reducer, or thinner contained in the non-compliant coating, containing the maximum VOC content of the multi component coating, g/L.
D_c	=	Density of corresponding solvent, reducer, or thinner used in the compliant coating system. [= 880 g/L.]

305.2 The capture system shall vent all drying oven exhaust to the control device and shall have one or more inlets for collection of fugitive emissions; and

305.3 During any period of operation of a thermal incinerator, combustion temperature shall be continuously monitored; and

305.4 During any period of operation of a catalytic incinerator, exhaust gas temperature shall be continuously monitored; and

305.5 Written approval for the use of such equipment is obtained from the Air Pollution Control Officer prior to installation or use of the equipment.

306 EMISSIONS AVERAGING PROVISIONS:

306.1 A person may comply with the provisions of Sections 302, 303, and 304 by using an averaging approach for all or a portion of the coatings used at the facility, provided that all requirements of this Section are met.

306.1.1 Standard: A person using the provisions of this Section for compliance shall demonstrate that emissions from the coatings being averaged, on a pounds of VOC per pounds of solids basis, on a rolling 30-day basis, are less than or equal to 90 percent of the allowable emissions, based on the following:

$$0.9\sum_{i=1}^{n} VOC_i(U_i) \geq \sum_{i=1}^{n} ER_i(U_i)$$

Where:

VOC_i = VOC content limit of coating AI@ (grams of VOC per liter of material for low solids coatings and pounds of VOC per pound of solids for all other coatings, as required in Sections 302, 303, or 304).

U_i = Usage of coating AI@ (liters of material for low-solids coatings, and pounds of solids for all other coatings), and

Er_i = Actual VOC content of coating AI@, as applied (grams per liter for low-solids materials and pounds of VOC per pounds of solids for all other coatings).

306.1.2 Conditions: The 0.9 multiplier above is applicable only to facilities that are subject to Rule 507 Federal Operating Permit Program, and is not applicable after July 1, 2005. Any wood product coating not included in the emissions averaging shall comply with the VOC limits in Sections 302, 303, or 304.

307 REQUIREMENTS FOR SURFACE PREPARATION AND CLEANUP MATERIALS: Any person subject to this rule shall comply with the following requirements:

307.1 Spray gun nozzles only, may be soaked in solvent-based materials for cleaning, provided the container (not to exceed five (5) gallons in size) is kept tightly covered at all times except when accessing the container.

307.2 Closed containers shall be used for the disposal of cloth or paper used for surface preparation, cleanup, and coating removal.

307.3 VOC-containing materials shall be stored in containers, which are closed when not in use, and shall be disposed of in a manner that the VOC's are not emitted into the atmosphere.

307.4 A person shall not use solvent-based VOC-containing materials for the cleanup of spray equipment used in wood products coating application operations, unless the spray equipment is disassembled and cleaned in an enclosed gun cleaner.

307.5 A person shall not perform surface preparation or cleanup with a material containing VOC's in excess of 200 grams per liter (1.67 pounds per gallon) in accordance with VOC limit standards in Sections 302 and 303.

400 ADMINISTRATIVE REQUIREMENTS

401 PROHIBITION OF SPECIFICATION: No person shall require for use or specify the application of any coating subject to the provisions of this rule that does not meet the limits and requirements of this rule. The prohibition of this Section shall apply to all written or oral contracts under the terms of which any coating is to be applied to any wood product at any physical location within the District.

402 LABELING REQUIREMENTS, VOC CONTENT: Each container of any coating, surface preparation material, or cleanup material, or stripper manufactured after
July 1, 1997 shall display its maximum VOC content of the coating, as applied, and after any thinning as recommended by the manufacturer, or shall have this information provided in a product data sheet supplied with the container. VOC content shall be displayed as grams of VOC per liter of coating (less water and less exempt solvent, and excluding any colorant added to tint bases), surface preparation and cleanup material, or stripper. VOC content displayed may be calculated using product formulation data, or may be determined using the test method in Section 503.1. Alternatively, containers for strippers subject to the provisions of Section 304 may display only the partial vapor pressure.

403 EMISSIONS AVERAGING PLAN:

403.1 A person wanting to use the emissions averaging provisions of Section 306 to achieve compliance with this rule shall submit an Emissions Averaging Plan ("Plan") for approval by the Air Pollution Control Officer. The Plan may not be implemented until it is approved, in writing, by the Air Pollution Control Officer. Submittal of a Plan does not provide an exemption from the requirements of this rule. The Plan must be resubmitted, for approval by the Air Pollution Control Officer on an annual basis. If the Plan is not approved, emissions averaging will not be permitted.

403.2 The Plan shall include, at a minimum:

403.2.1 A description of the wood product coatings to be included in the averaging program, **and**

403.2.2 A description of the quantification and record keeping for coating usage, coating VOC and solids content, VOC emissions, and calculations to show compliance with Section 306.

404 OPERATION AND MAINTENANCE PLAN: A person using an emission control system pursuant to Section 305, as a means of alternate compliance with this rule, as provided in Sections 302, 303 and 304, must submit an Operation and Maintenance Plan for the emission control system to the Air Pollution Control Officer for approval. A person proposing to install a new emission control system as a means of alternate compliance with this rule shall submit in addition to an Operation and Maintenance Plan, an application for Authority to Construct, pursuant to Rule 501, General Permit Requirements. The Plan shall specify operating and maintenance procedures which will demonstrate continuous operation of the emission control system during periods of emissions-producing operations. The Plan shall also specify which records must be kept to document these operating and maintenance procedures. These records shall comply with the requirements of Sections 501 and 502. The Plan shall be implemented upon approval of the Air Pollution Control Officer.

405 FEASIBILITY AND TECHNOLOGY ASSESSMENT: By July 1, 2003, the Air Pollution Control Officer shall assess the feasibility of the July 1, 2005 VOC limits and whether new technology could provide additional emissions reductions to meet the District's Air Quality Management Plan objectives.

500 MONITORING AND RECORDS

501 RECORDKEEPING: In addition to any applicable record keeping requirements of either Rule 502, New Source Review, Rule 507, Federal Operating Permit Program, and Rule 511, Potential to Emit, or any other District rule which may be applicable, any person subject to this rule shall maintain the following records in order to evaluate compliance:

501.1 Product Data:

501.1.1 A data sheet, material list, or invoice giving material name, manufacturer identification, material application, and VOC content;

501.1.2 Any catalysts, reducers, or other components used, and the mix ratio;

501.1.3 t he applicable VOC limit from Section 302 or 303 and the actual VOC content of the wood product coating as applied.

501.2 Product Usage and Frequency:

501.2.1 For persons using coatings or materials which comply with the VOC limits specified in Sections 302, 303, and 304, records shall be maintained on a monthly basis, showing the type and volume of coatings, strippers and surface preparation and cleanup materials used. Coating type shall be designated according to the coating categories as listed in Sections 302, 303, and 304.

501.2.2 For coatings used in emissions averaging pursuant to Section 306, daily records shall be maintained, showing the type and volume of coatings, strippers and surface preparation and cleanup materials used.

501.2.3 If at any time a person uses coatings or materials exceeding the VOC limits specified in Sections 302, 303, and 304, records shall be maintained on a daily basis showing the type and volume of materials used.

501.3 Emission Control System:

501.3.1 A person using an emission control system as a means of alternate compliance pursuant to Section 305, shall maintain records on a daily basis, showing the type and volume of coatings and solvents used.

501.3.2 A person using an emission control system as a means of alternate compliance with this rule pursuant to Section 305, shall maintain daily records of key system operating and maintenance procedures which will demonstrate continuous operation and compliance of the emission control system during periods of emission-producing activities. Key system operating parameters are those necessary to ensure compliance with the requirements of Section 305.

502 RETENTION OF RECORDS: All records required by this rule shall be retained for at least three years, except for sources subject to Rule 507, Federal Operating Permit Program, which shall be retained for at least five years. Such records shall be made available to the Air Pollution Control Officer upon request.

503 TEST METHODS

503.1 Determination of VOC Content: VOC content of wood product coatings, strippers, and surface preparation and cleanup materials, subject to this rule, shall be determined in accordance with United States Environmental Protection Agency (U.S. EPA) Method 24 and Sections 250, 251 or 252 of this rule, as applicable.

503.2 Determination of Composition of VOC: The composition of VOC shall be as specified on the manufacturer's label or data sheet, or as determined by ASTM Method E-260, General Gas Chromatograph.

503.3 Determination of Compounds Exempt From VOC Definition: Exempt Compounds per Section 219 of this rule, and as defined in Rule 102, Definitions, shall be determined in accordance with ASTM D-4457-85, or ARB Method 432. If any of the perfluorocarbons or volatile cyclic and linear methyl siloxanes are being claimed as exempt compounds, the person making the claim must state in advance which compounds are present, and the U.S. EPA-approved test method used to make the determination of these compounds.

503.4 Determination of Capture Efficiency: Efficiency of the capture system shall be determined in accordance with U.S. EPA “Guidelines for Determining Capture Efficiency, January 9, 1995". Individual capture efficiency test runs subject to the U.S. EPA technical guidelines, calculated in accordance with Section 205, shall be determined by:

503.4.1 Applicable U.S. EPA methods 204, 204A, 204B, 204C, 204E, and/or 204F; or

503.4.2 The South Coast Air Quality Management District “Protocol for Determination of Volatile Organic Compound (VOC) Capture Efficiency”; or

503.4.3 Any other method approved by the U.S. EPA, the California Air Resources Board, and the Air Pollution Control Officer.

503.5 Determination of Control Device Efficiency: Efficiency of the emission control device shall be based upon test measurements made in accordance with (1) U.S. EPA Method 18, 25 or 25A, for VOC concentration, and (2) U.S. EPA Method 2 or 2C for flow rates, as applicable, and calculated in accordance with Section 210.

503.6 Vapor Pressure: Vapor pressures may be obtained from standard reference texts or may be determined by ASTM D-2879.

503.7 Volatile Content of Radiation Curable Materials: Volatile content of radiation curable materials shall be obtained in accordance with ASTM Method D-5403-93.